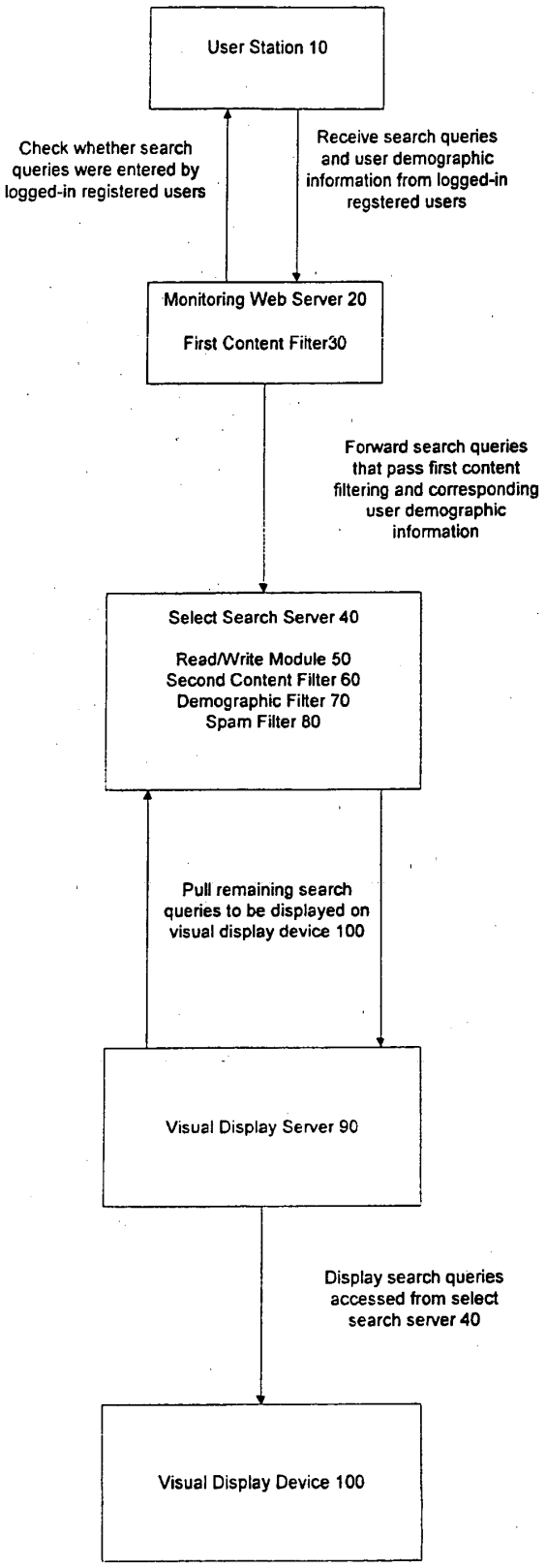

User Station 10
Check whether search queries were entered by logged-in registered users
Receive search queries and user demographic information from logged-in regstered users
Monitoring Web Server 20
First Content Filter30
Forward search queries that pass first content filtering and corresponding user demographic information
Select Search Server 40
Read/Write Module 50
Second Content Filter 60
Demographic Filter 70
Spam Filter 80
Pull remaining search queries to be displayed on visual display device 100
Visual Display Server 90
Display search queries accessed from select search server 40
Visual Display Device 100

Fig. 1

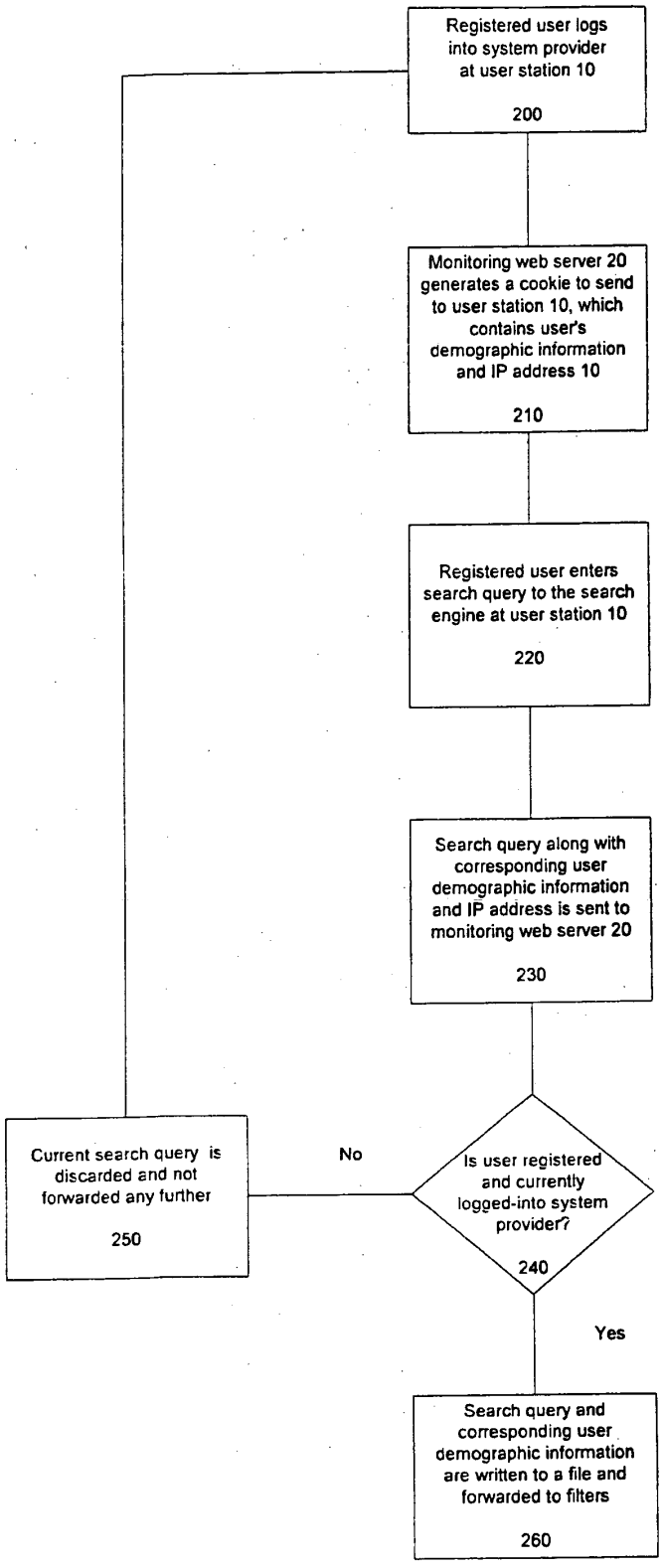


Fig. 2

[redacted]

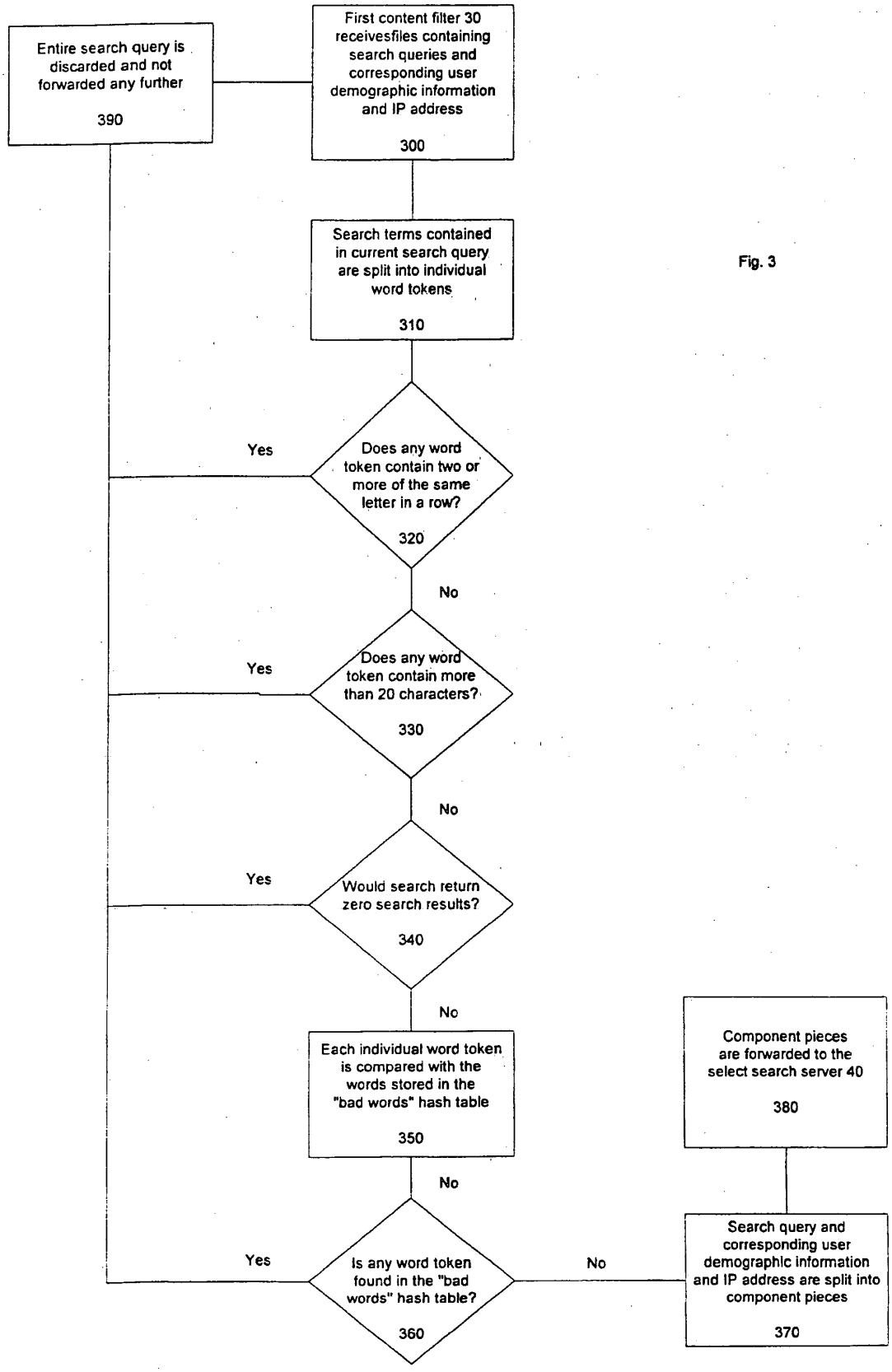

First content filter 30 receivesfiles containing search queries and corresponding user demographic information and IP address
300
Search terms contained in current search query are split into individual word tokens
310
Does any word token contain two or more of the same letter in a row?
320
Yes
No
Does any word token contain more than 20 characters?
330
Yes
No
Would search return zero search results?
340
Yes
No
Each individual word token is compared with the words stored in the "bad words" hash table
350
No
Is any word token found in the "bad words" hash table?
360
Yes
No
Entire search query is discarded and not forwarded any further
390
Search query and corresponding user demographic information and IP address are split into component pieces
370
Component pieces are forwarded to the select search server 40
380

Fig. 3

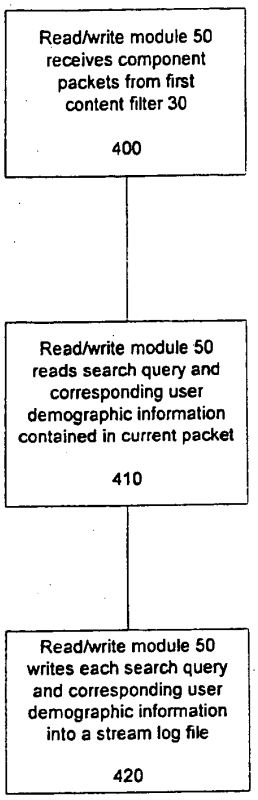

Read/write module 50 receives component packets from first content filter 30
400
Read/write module 50 reads search query and corresponding user demographic information contained in current packet
410
Read/write module 50 writes each search query and corresponding user demographic information into a stream log file
420

Fig. 4

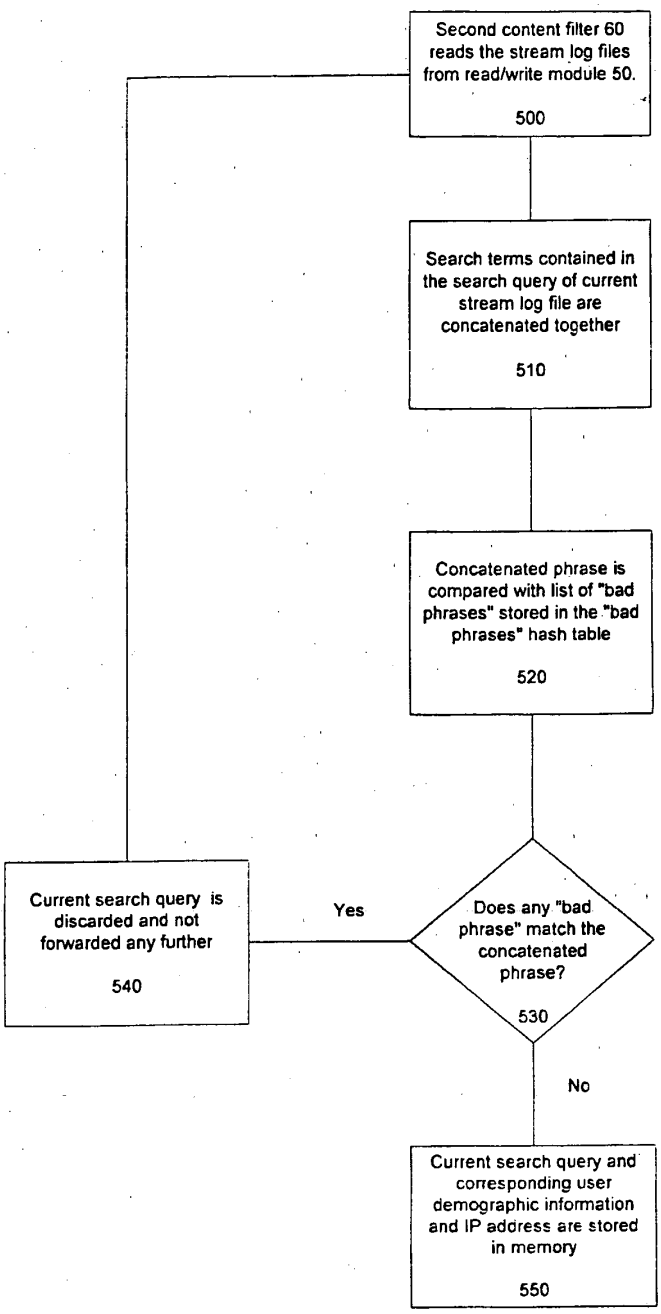

Second content filter 60 reads the stream log files from read/write module 50.
500
Search terms contained in the search query of current stream log file are concatenated together
510
Concatenated phrase is compared with list of "bad phrases" stored in the "bad phrases" hash table
520
Does any "bad phrase" match the concatenated phrase?
530
Yes
Current search query is discarded and not forwarded any further
540
No
Current search query and corresponding user demographic information and IP address are stored in memory
550

Fig. 5

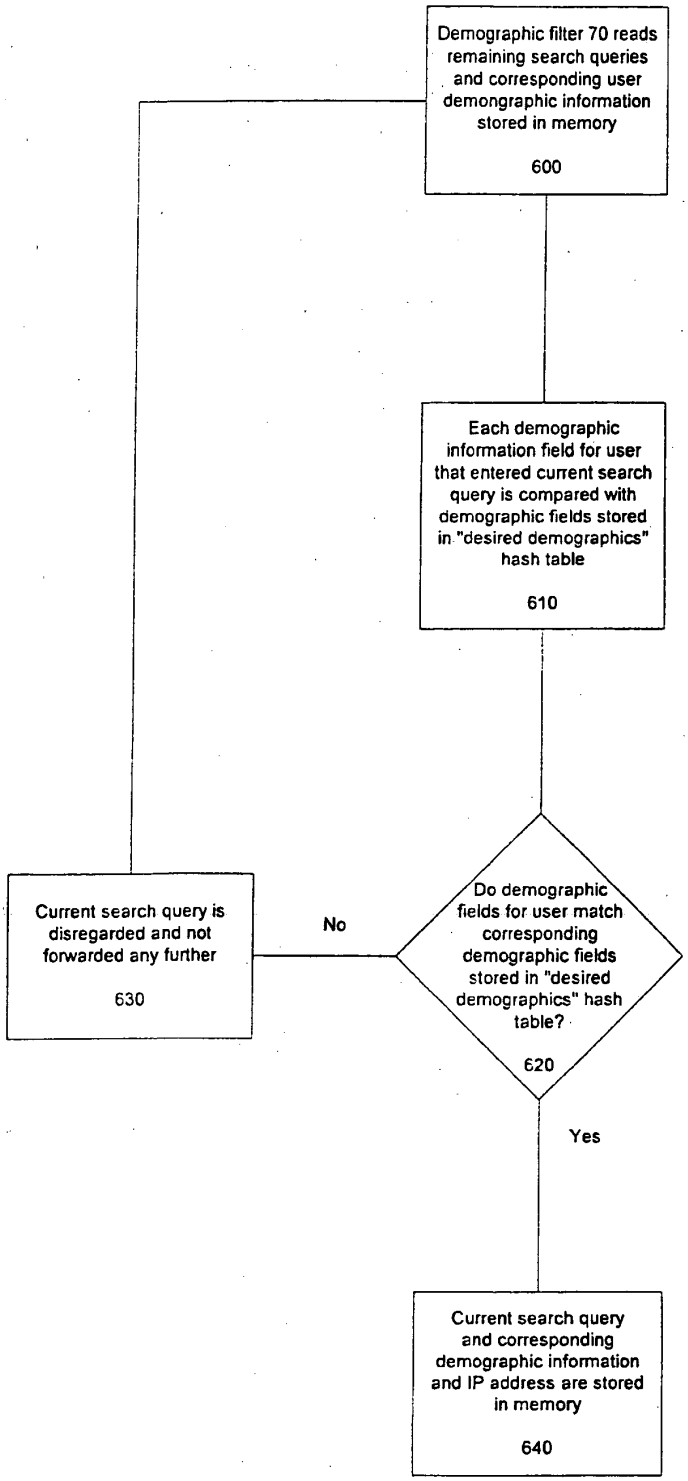

Demographic filter 70 reads remaining search queries and corresponding user demongraphic information stored in memory
600
Each demographic information field for user that entered current search query is compared with demographic fields stored in "desired demographics" hash table
610
Do demographic fields for user match corresponding demographic fields stored in "desired demographics" hash table?
620
No
Current search query is disregarded and not forwarded any further
630
Yes
Current search query and corresponding demographic information and IP address are stored in memory
640

Fig. 6

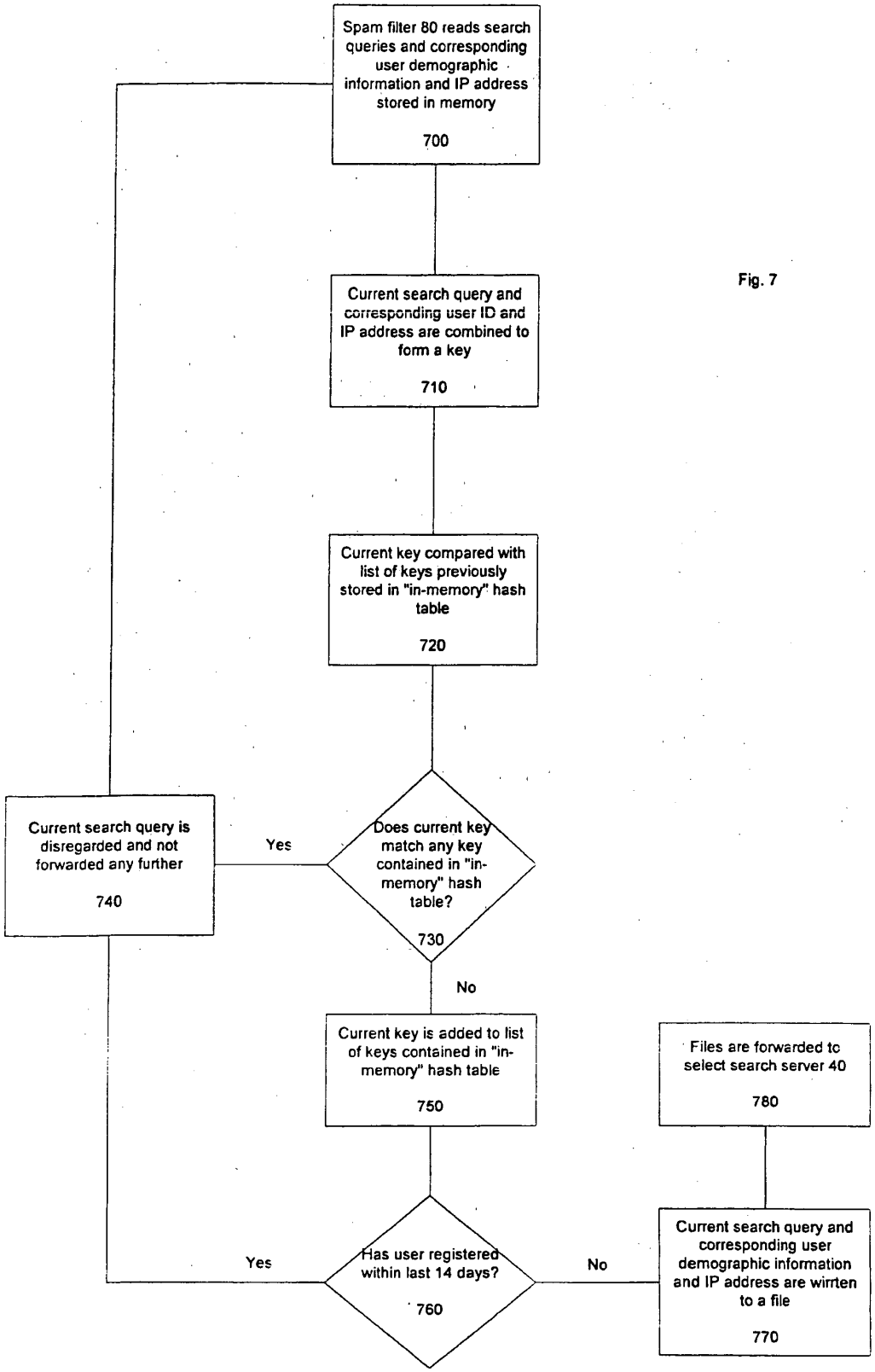

Spam filter 80 reads search queries and corresponding user demographic information and IP address stored in memory
700
Current search query and corresponding user ID and IP address are combined to form a key
710
Current key compared with list of keys previously stored in "in-memory" hash table
720
Does current key match any key contained in "in-memory" hash table?
730
Yes
Current search query is disregarded and not forwarded any further
740
No
Current key is added to list of keys contained in "in-memory" hash table
750
Has user registered within last 14 days?
760
Yes
No
Files are forwarded to select search server 40
780
Current search query and corresponding user demographic information and IP address are wirrten to a file
770

Fig. 7

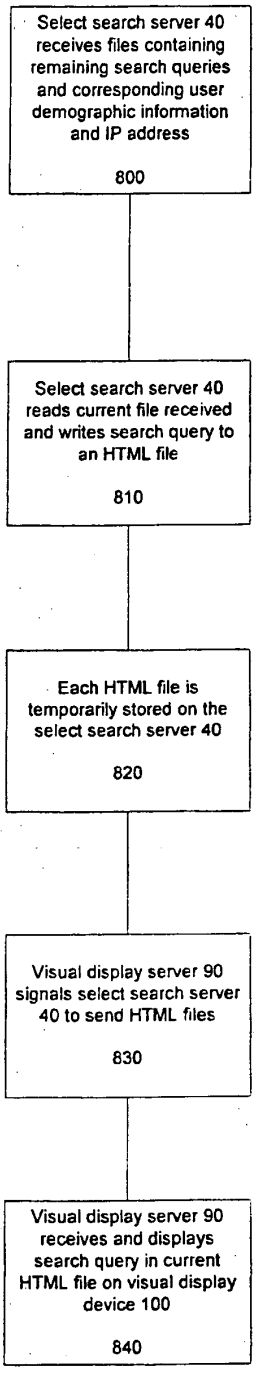
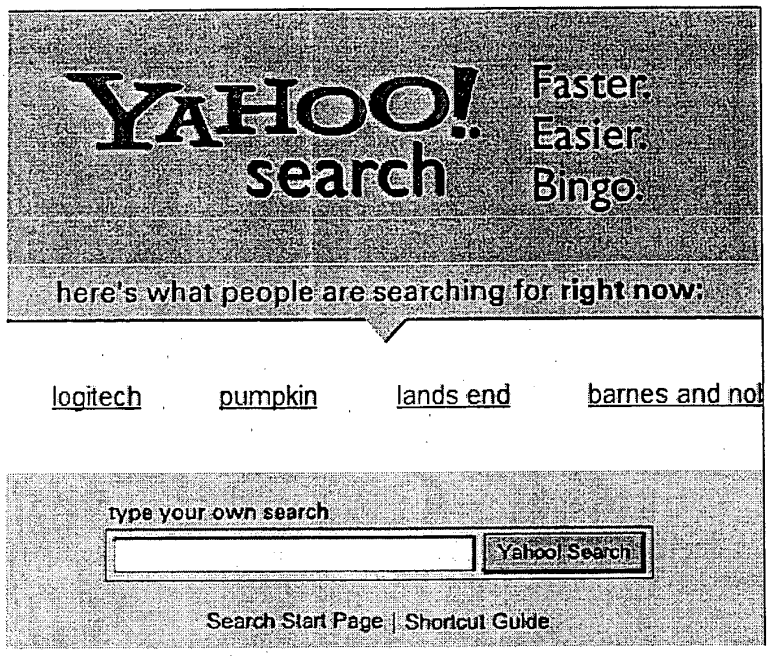

Select search server 40 receives files containing remaining search queries and corresponding user demographic information and IP address
800
Select search server 40 reads current file received and writes search query to an HTML file
810
Each HTML file is temporarily stored on the select search server 40
820
Visual display server 90 signals select search server 40 to send HTML files
830
Visual display server 90 receives and displays search query in current HTML file on visual display device 100
840

Fig. 8

FIG. 9c



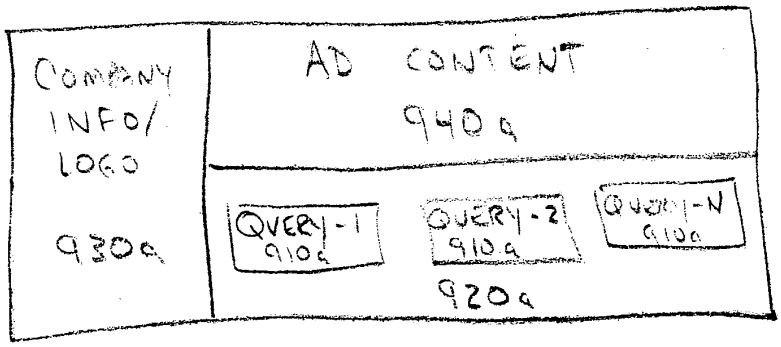
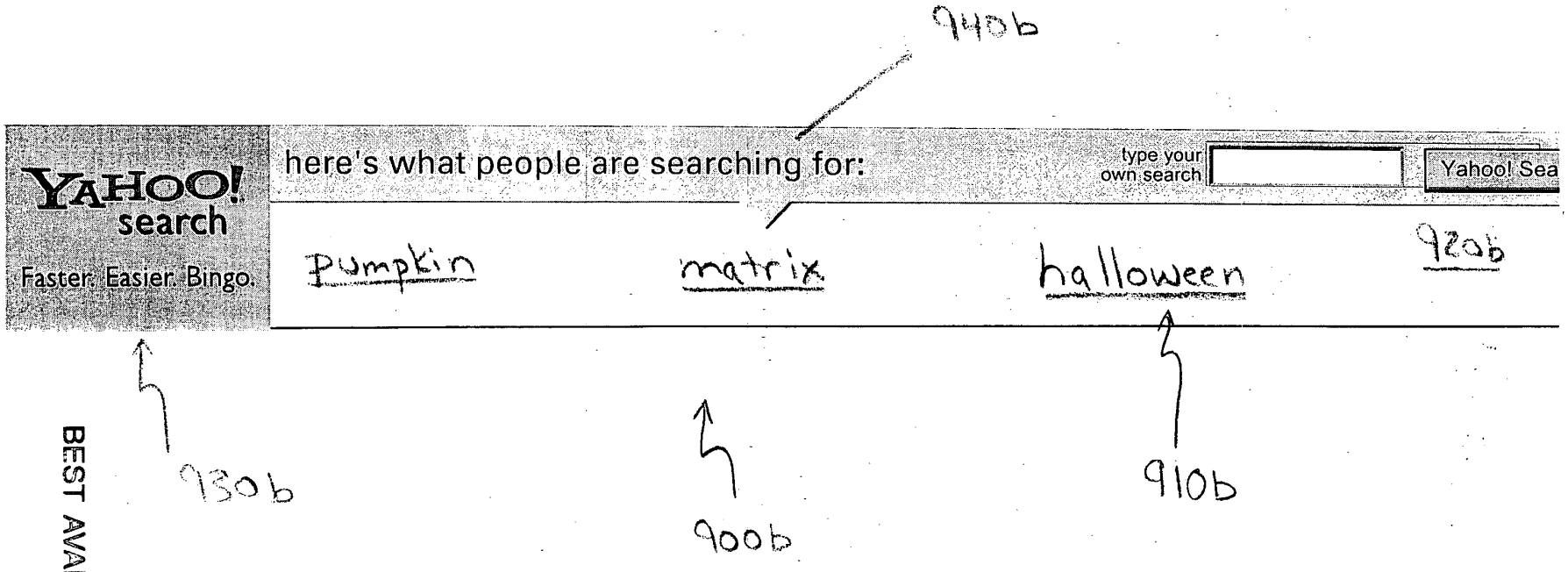


FIG. 9a

900a

FIG. 9b



```
// shim will look for the following variables which will be
supplied by the ad unit:
// nqIn  = number of terms to get from the CGI - required!
// ageIn  = age range (all:0-150/default, 1:0-18, 2:18-25, 3:25-
35, 4:35-50, 5:50-150)
// genIn  = gender (m-male, f-female, a-all) - not required
// zipIn = zip code - not required
// radIn = radius around zip-code - not required
```

BLOCK 1:

```
var extraParams = "";
if ( (nqIn < 1) or (nqIn == undefined) ) nqIn = 20;
if ( ageIn != undefined ) { extraParams += "&age="+ageIn; }
if ( genIn != undefined ) { extraParams += "&gen="+genIn; }
if ( zipIn != undefined ) { extraParams += "&zip="+zipIn; }
if ( radIn != undefined ) { extraParams += "&rad="+radIn; }
```

BLOCK 2:

```
1: baseURL =
"http://select.search.server.com/terms?nq="+nqIn+"&r=x";
2: extraParams += "&rnd="+Math.random();
3: baseURL += extraParams;
```

BLOCK 3:

```
buzz = new XML();
buzz.onLoad = parseResults;
buzz.ignoreWhite = true;
var listing=[];
buzz.load(baseURL);
```

BLOCK 4:

```
var dataState = "loading";
```

BLOCK 5:

```
function parseResults(result) {

     if (result) {
          var items = buzz.firstChild;
          for (i=1; i<items.length; i++) {
               listing[i-1] = new Object();
               listing[i-1]["keyword"] = items[i].childNodes[0];
          }
          dataState = "available";
     }
     else
     {
          dataState = "unavailable";
     }
}
```

Fig. 10

```
// This SWF looks for two variables
// delta = step size to take; dy=20 yields 2.0 pixels per
//frame
// offset = distance between keywords; can be negative to
// tighten up spacing between keyword blocks
// If they are not found, default values are set in frame
// 15 of this level.
// ttw = "time to wait" in seconds - defaults to 5 seconds
// (in this frame--see below)

// shim.swf will look for variables as follows:
// n  = number of terms to get from the CGI - defaults to 20 if
not set
// a  = age range (all:0-150/default, 1:0-18, 2:18-25, 3:25-35,
4:35-50, 5:50-150)
// gen = gender (m-male, f-female, a-all) - not required
// zip = zip code - not required
// rad = radius around zip-code - not required
//
// EXAMPLE:
// To get a scroll of 20 keywords from users in ZIP code
//94089, load this scroller as follows:
//
ticker.loadMovie("http://path_to_scroller_SWF/vscroll_300x300.sw
f?n=20&zc=94089"
```

BLOCK 1:

```
pShim.loadMovie("http://select.search.server.com/shim.swf?nqIn="
+ nq +"&ageIn="+a+"&genIn="+gen+"&zipIn="+zip+"&radIn="+rad)
```

BLOCK 2:

```
var scrollStatus = "loading"
```

BLOCK 3a:

```
var startTime = getTimer()
```

BLOCK 3b:

```
if ( ttw == undefined ){ ttw = 5;}
```

Fig. 11

BLOCK 1:

```
if ( ttw*1000 < (startTime - getTimer()) )

{
    scrollStatus = "unavailable";
    goToAndStop(15);
}
else if ( pShim.dataState == "loading" )
```

BLOCK 2:

```
{
    gotoAndPlay(2);
    scrollStatus = "loading"
}
else
```

BLOCK 3:

```
{
    scrollStatus = pShim.dataState;
    gotoAndStop(15);
}
```

Fig 12

```
// delta = step size to take; dy=20 yields 2.0 pixels per
// frame
// offset = distance between keywords; can be negative to
// tighten up spacing between keyword blocks
```

BLOCK 1:

```
if ( delta == undefined ){ delta = 20;}
```

BLOCK 2:

```
if ( offset == undefined ){ offset = 0;}
```

BLOCK 3:

```
offset = 1.0*offset;// coerce from string to number, just in
case
```

BLOCK 4:

```
initMove=move=delta/10
```

BLOCK 5:

```
isMoving=true
```

BLOCK 6:

```
function hmove(mc){
    if(!isMoving){
        move=0
    } else(
        move=initMove
    )
```

BLOCK 6a:

```
mc._x -= move
```

BLOCK 6b:

```
if(mc._x < -mc._width){
        mc._x+=2*xPos;
    }
    mc._x= Math.floor(mc._x)
   }
```

BLOCK 7:

```
stop();
```

BLOCK 8a:

```
hoverColor="FF0000"
```

BLOCK 8b:

```
regularColor="0000FF"
```

Fig. 13a

BLOCK 9:

```
searchURL = "http://search.server.com/search?p=";
```

BLOCK 10:

```
if ( scrollStatus == "available" )
    {
      var localListing = [];
      localListing = pShim.listing;
      formatResults(localListing);
    }
```

BLOCK 11:

```
function formatResults(data) {
        xPos=0
        for (i=0; i<data.length; i++) {
            buzzMC1.attachMovie("item", "b"+i, i);
            buzzMC2.attachMovie("item", "b"+i, i);
            var mc1 = buzzMC1["b"+i];
            var mc2 = buzzMC2["b"+i];
            var head = data[i].keyword;
            var url = searchURL+escape(head);
            mc1.u = mc2.u=url;
            mc1.keyword = mc2.keyword = head;
            mc1.head = mc2.head="<font
color='#"+regularColor+"'><u>"+head+"</u></font>";
            mc1.txt = mc2.txt= head
            var txtWidth=pixelWidthArial(head, 10);
            mc1.buttonMC._width=mc2.buttonMC._width = txtWidth
            mc1._x = mc2._x=xPos;
            xPos += txtWidth+offset
        }
        buzzmc2._x +=xPos
    }
```

Fig 136

BLOCK 1:

```
on(rollOver){
    _parent._parent._parent.isMoving=false
    _parent.head = "<font
color='#"+_parent._parent._parent.hoverColor+"'>"+_parent.txt +
"</font>"
   }
```

BLOCK 2:

```
on(rollOut, dragOut){ // Block 2
      _parent._parent._parent.isMoving=TRUE
      _parent.head = "<font
color='#"+_parent._parent._parent.regularColor+"'><u>"+_parent.t
xt + "</u></font>"
   }
```

BLOCK 3:

```
on(release){
    // function doClick(keyword) must be defined in the _root
level or nothing happens
    _root.doClick(_parent.keyword)
   }
```

Fig. 14

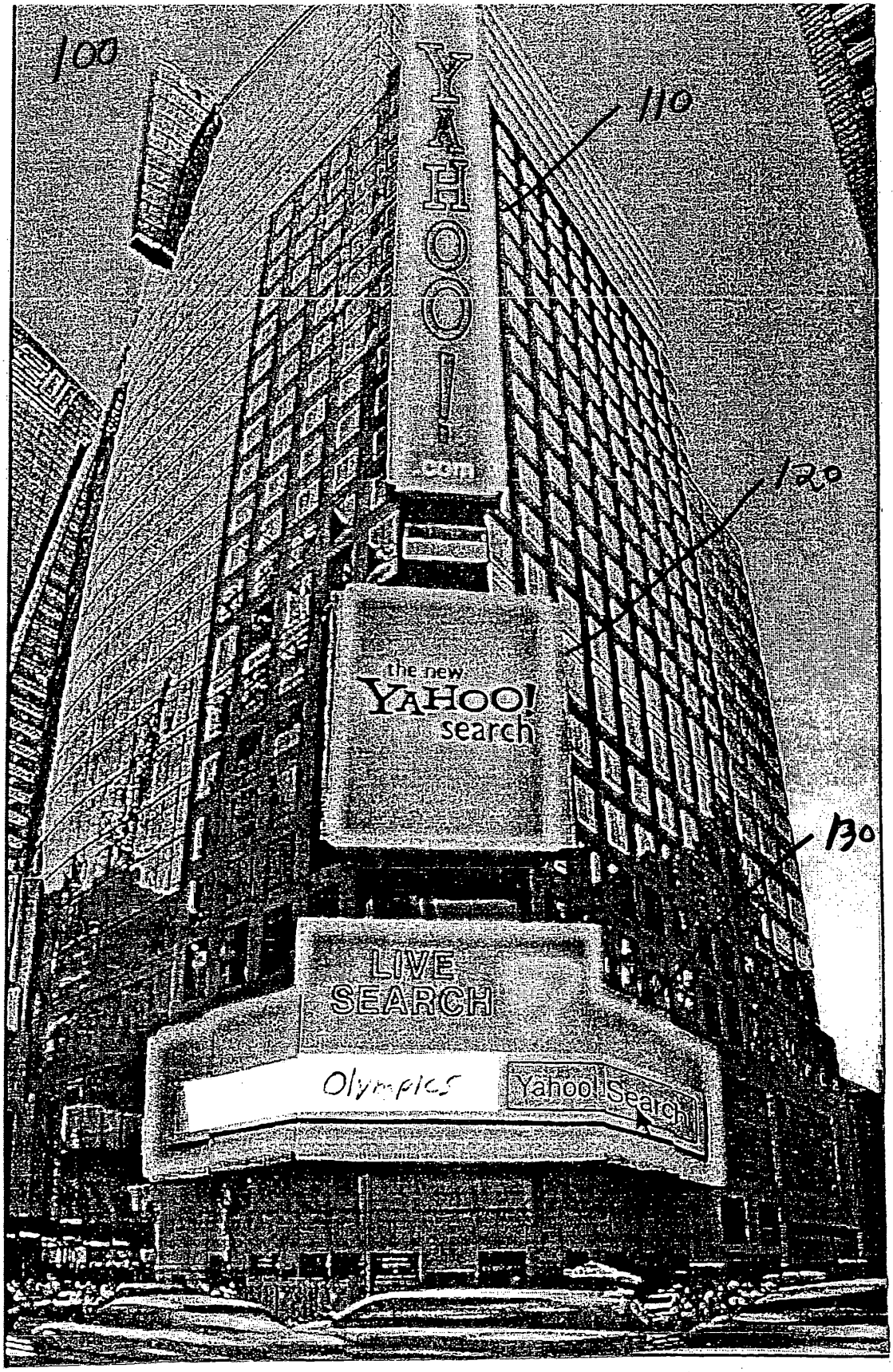


Fig. 15

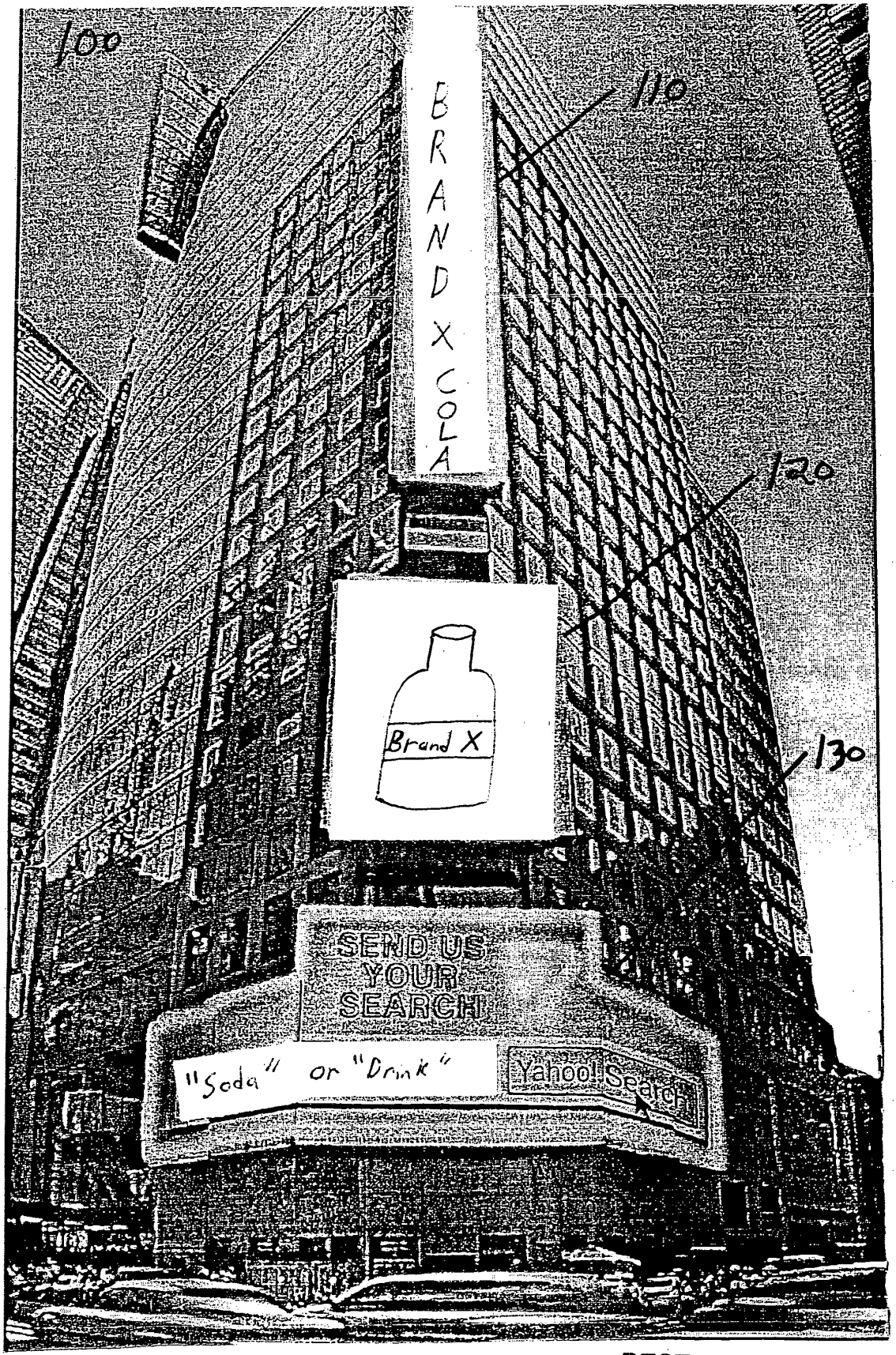


Fig. 16

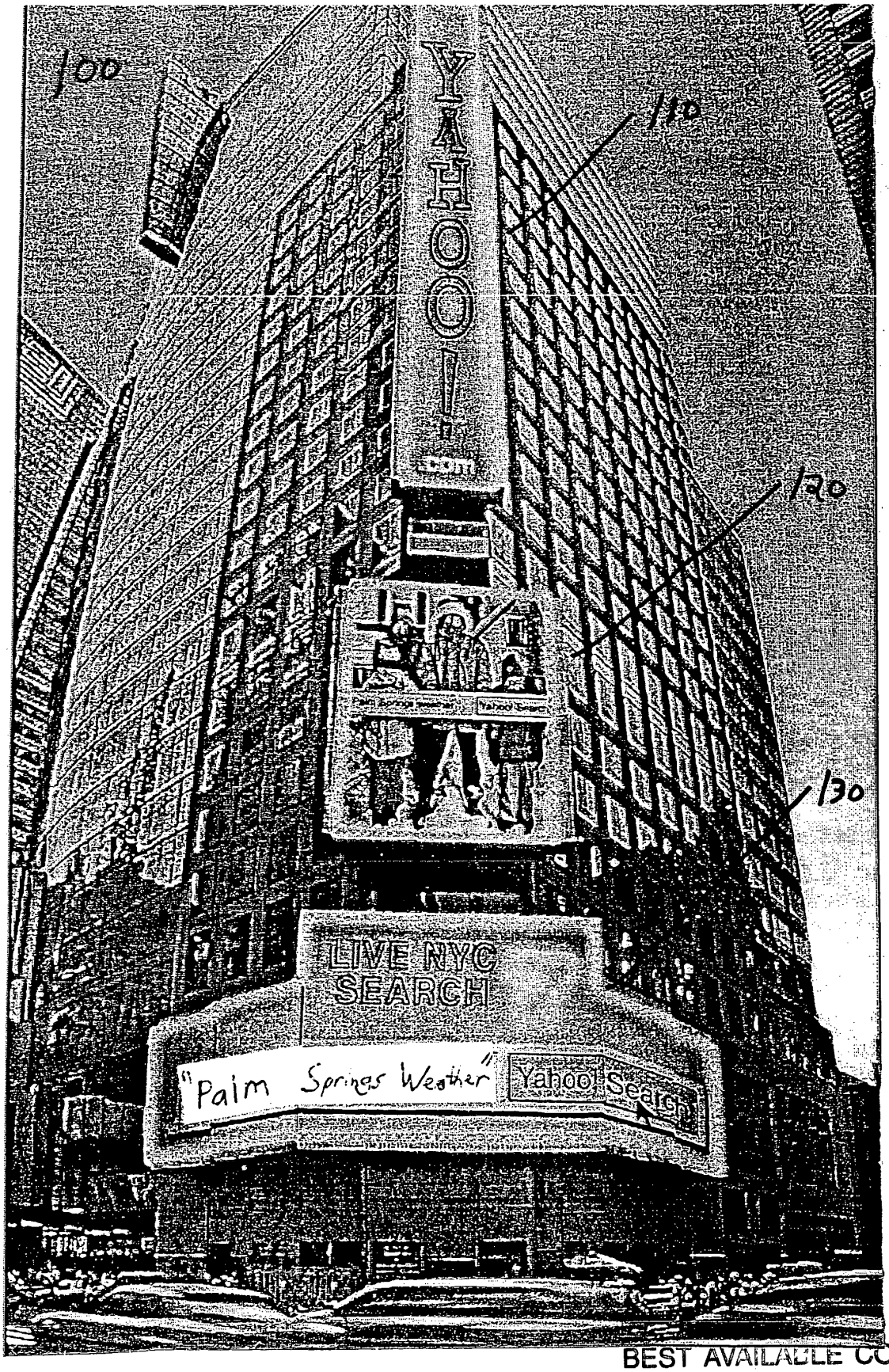


Fig. 17

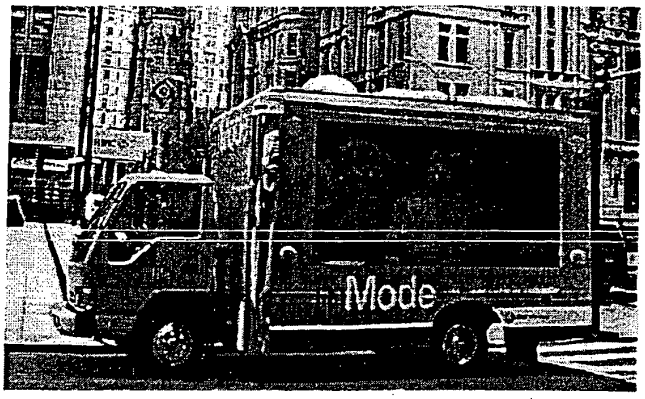


Fig. 18

Fig. 19